#### DOCUMENT RESULE

ED 183 881

CE 024 503

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TITLE

Determining the Need for Vocational Special Neels

INSTITUTION

Inservice Training for Vocational Educators. Minnesota Univ., Minneapolis. Research and Development Center for Vocational Education.

PUB DATE

Apr 80 NOTE

50p.: Parts of this iocument will not reproduce well due to small type. Paper presented at the Annual

Meeting of the American Education Research Association (Boston, MA, April 8, 1980).

EDRS PRICE DESCRIPTORS MF01/PC02 Plus Postage.

\*Competence: Competency Based Teacher Education; \*Disabilities: \*Inservice Teacher Education:

\*Mains aming: \*Needs Assessment: Normalization (Handi....ped): Questionnaires: Teaching Skills:

\*Vocational Education Teachers

ABSTRACT

The first objective of this research project focused on organizing the large number of previously identified vocational special needs teacher competencies into an educational model. The model contained a matrix that compiled all these competencies into twelve domains of four performance phases each. The model proviles a framework for all activities in the field of vocational special neels: research, development, demonstration, personnel preparation, and technical assistance. The remaining project objectives focused on creating and pilot testing a needs assessment instrument to measure individual educators' perceived needs for training within each phase of the twelve domains and their preferences for the delivery of this training. This instrument was designed to provide data (for decision making) to inservice planners/deliverers at local, state, and/or national levels. Pilot test results indicated that the instrument could give useful data for making inservice/preservice planning decisions and that population subgroups had differing training needs. (The needs assessment instrument is appended.) (Author/LRA)

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April 8, 1980

Presentation to the Special Interest Group in Vocational-Technical Education at the 1980 Annual Meeting of the American Educational Research Association Boston, Massachusetts

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Public Law 94-142, the "Education for All Handicapped Children Act", mandated free and appropriate public education for all handicapped youth in America's public schools. These schools must identify the students that could, with the help of additional or special educational services, be returned (mainstreamed) to regular school classes. As this process of mainstreaming progressed and as P. L. 94-482, the Educational Amendments of 1976, also committed vocational educators to serve a wider range of populations with special learning needs, it has become apparent that many teachers do not have the type and/or level of preparation needed to effectively serve students with the full range of learner characteristics likely to appear in a mainstreamed classroom (Reynolds, Note 1). As teaching-related duties have become more diverse and more challenging, many regular teachers are in need of additional training in order to successfully cope with and educate these special needs learners.

Civen the commitment to mainstream special needs learners, specialized training must be provided to enable teachers to effectively educate these students. The Minnesota Research and Development Center for Vocational Education (MRDC) at the University of Minnesota has developed a program of research to examine the specific knowledge and skills related to serving special needs learners in regular vocational education classrooms. For the purposes of research at the MRDC and for the remainder of this report, the term special needs student is defined as any learner who requires additional instructional and/or support services in order to succeed in a vocational education program. The student's lack of success may or may not be the result of a handicap or disadvantagement.

The first stage of this project focused on a thorough review of the literature in the fields of vocational and special education. An emphasis



was placed on examining previous research that identified special needs

learner-related teaching competencies and research which focused on assessing
the inservice training needs of teachers.

# Previous Competency Studies

Those doing research in vocational and special education have conducted numerous research studies that identified competencies deemed necessary to successfully serve special needs learners.

Phelps (1976) identified 24 tasks that teachers should be capable of performing when teaching special needs learners. Teacher training modules were developed for each of these 24 tasks and they were reviewed and validated by means of questionnaire surveys and field test of the modules.

A list of 112 special needs related competencies was published by Len Albright in 1975. This list of competencies was divided into six major areas: (a) Program Management, (b) Curriculum, (c) Classroom Management, (d) Coordination, (e) Remediation, and (f) Counseling. Gary Meers (no date) also developed a list of 102 competencies for the eight following areas developed by Nebraska's Special Vocational Needs Endorsement Committee: (a) Program Planning, (b) Curriculum Development, (c) Methods of Instruction, (d) Evaluation, (e) Guidance, (f) Human Relations, (g) Management of Learning, and (h) Behavior.

A group of 200 competencies were identified by Hull et. al., in 1974. These competencies were identified for inclusion in the preservice and inservice training of vocational and practical arts teachers. This list was grouped into the nine following major areas: (a) Designing Instruction, (b) Direct Purposeful Instruction, (c) Developing Instructional Materials, (d) Evaluating Instruction, (e) Providing Student Guidance, (f) Conducting Research, (g) Managing the Classroom, (h) Commitment to the Education



Profession, and (i) Maintaining Community Relations.

Hamilton and Harrington (Note 2) reported in 1979 that a research project at the National Center for Research in Vocational Education had identified broad areas of special needs related competencies for vocational teachers. That research project is currently developing 15 instructional modules related to those competencies which are identified as follows:

(a) Instructional Planning, (b) Preparation of Students for Employability,

(c) Materials Selection/Development, (d) Special Instructional Techniques,

(e) Counseling/Student Self-Awareness, Self-Concept, Self-Image, Self-Actualization, (f) Identification/Diagnosis of Students, (g) Communication/
Language/Vocabulary, (h) Development of Student's Career Planning Skills,

(i) Student Evaluation, (j) Program Evaluation, (k) Professional Development,

(l) Development of Student's Life-Role Competencies, (m) Modification of
Learning Environment/Physical Setting, (n) Promotion of Peer Acceptance,
and (o) Program Promotion.

Reynolds (Note 1) proposed that teacher education programs should be reorganized in order to better prepare teachers to meet the requirements of
P. L. 94-142. This reorganization would focus on the following ten clusters
of competencies: (a) Curriculum, (b) Teaching Basic Skills, (c) Class
Management, (d) Professional Consultation and Communications, (e) TeacherParent-Student Relationships, (f) Exceptional Conditions, (g) Referral,
(h) Individualized Teaching, (i) Student-Student Relationships, and
(j) Professional Values.

Although many researchers have identified varying lists of competencies deemed necessary for teaching special needs learners in regular classrooms, there is no generally accepted list of competencies whose validity has been established by research. Instead, existing competency lists' validity was



determined solely on the experience-based judgments of educators with expertise in programs serving special needs populations.

# Project Objectives

A new research effort to produce only another list of identified competencies would have added little to the knowledge base for teaching special needs populations. Instead, one of the objectives of this program of research focused on organizing the large number of previously identified competencies into an educational model. This model could provide a framework for all activities: research, development, demonstration, personnel preparation, and technical assistance in the field of vocational special needs. After developing a model of this kind, this study then focused on the following project objectives:

- Develop an instrument to measure teachers' needs for additional training in the competency domains of working with special needs students;
- 2. Pilot test the needs assessment instrument;
- 3. Analyze the data obtained from the pilot test;
- 4. Revise the instrument, based on pilot test results;
- 5. Explore and propose research strategies for further data collection and analysis with the revised instrument and/or procedure.

## Method

## Description of the Study and Procedure

The purpose of this study was to create a needs assessment instrument to measure individual educators' perceived needs for training to work with special needs students, and their preferences for the delivery of this training. The instrument was designed to assess these needs through the



examination of the matrix of the competency domains and phases drawn from previous special needs related teacher competency research. This instrument was utilized to provide information to allow inservice planners and deliverers at the local, state, and/or national levels to determine which competency domains and phases are most appropriate for emphasis when providing inservice training for the populations surveyed.

There were three parts to this study: 1) the identification of an appropriate set of special needs teacher competencies, 2) the development of a needs assessment instrument, and 3) the pilot test of the needs assessment instrument. The first part of the study, the compilation and creation of the set of educator special needs competencies used for the assessment instrument, was conducted after a thorough literature review. The outcome of this activity was the creation of a matrix of the 12 domains of working with special needs students and the four phases within each of these domains.

Since the matrix of domains and phases reflected the total range of competencies and skills for working with special needs students, it offered the best mechanism for assessing teacher training needs and thus assisting inservice planners to identify training priorities. A needs assessment instrument was designed to collect information on educators' perceptions of their training needs in these competency domains. The instrument also included a section designed to determine educators' preferences for how, when, and from whom they would prefer to receive the needed training.

The needs assessment instrument was pilot tested in a sample of secondary and post-secondary vocational schools in Minnesota. The pilot test had two purposes: 1) to determine whether data collected on the instrument could be analyzed to provide useful information and 2) to obtain and analyze comments from the respondents on the instrument's appropriateness



and format to determine whether the instrument was acceptable and/or modifyable for use with this population. Analysis of the pilot test results was
used to make recommendations for revisions in the instrument and to plan
future strategies to test for obtaining more valid and reliable needs assessment information.

# Development of the Special Needs Teacher Competency Domain and Phase Matrix 1

Literature Review. The review of literature indicated that most training approaches to enabling teachers to work with special needs students are based upon enhancing or adding new teacher competencies and skills. Thus, needs assessments for this training should also be based on the same oncept—teacher competencies. This would allow the assessment results to be directly translated into planning training programs.

A complete and valid set of special needs teacher competencies are necessary to accurately assess these training requirements of educators. This complete set should represent all the domains or areas of specialized skills necessary for teaching and working with special needs students in regular secondary classrooms. The set should describe all the concepts that must be addressed in the emerging field of vocational special needs. This would provide the framework for all activities: research, development, demonstration, personnel preparation, and technical assistance in this new field.

The review of literature on identifying special needs teacher competencies also indicated that there was no universally acceptable, well validated or classified list of competencies that regular teachers need in order to be successful in dealing with and teaching special needs students. There was



<sup>&</sup>lt;sup>1</sup>The content in this section was drawn from: Peak, L. M. <u>A Content Analysis Study of Special Needs Teacher Training Materials</u>. Minneapolis: University of Minnesota, 1980.

disagreement on how many and which competencies were needed. There was
the possibility that the need for some competencies may not have been well
documented or validated. It was also often unclear how competencies were
initially identified. The studies alluded to a mutually agreed upon core, or
areas of competencies, via the competency categories they defined and used.
But, none of the sets of categories identified in the literature were acceptable. They were not derived from a single classification principle.
Within a set of categories, some of the categories would represent exhaustive
areas of working with special needs students, while other categories would
represent the processes or phases of working within these areas. Therefore,
it was determined that a compilation and synthesis of the different competency lists and common elements identified in the literature was necessary to
create an appropriate set for the training needs assessment instrument.

The following steps outline the procedure used to create this set which resulted in the competency domain and phase matrix. First, a master list of all the special needs teacher competencies identified in the literature review was compiled. Competencies that were found to be redundant were deleted from this list and the remaining items were placed in a fifty page master list of special needs-related teacher competencies.

Advisory committee activities. Secondly, a twelve member advisory committee (see Appendix A for the list of committee members) was organized to review the master list to insure that no necessary competencies had been overlooked. Each member of the advisory committee was asked to read through the master list of special needs teacher competencies and perform the following three activities:

 Note any special needs teacher competencies they felt had been excluded from the master list.



- 2. Specify (by crossing out) any competencies they felt were inappropriate.
- 3. Note any related competency studies or prior research efforts, not included in the list of references, that might further enhance the master list.

The input from the advisory committee (6 out of 12 responses were returned) resulted in no additions to or deletions from the master list.

Analysis of competency statements. Next, the master list was analyzed to see whether certain categories or domains of competencies were evident. After a thorough analysis, 12 distinct, exhaustive, but not completely mutually exclusive, domains were identified within the master list. These domains were compared and contrasted with the categories and domains that had been identified in the studies in the literature review. The appropriateness and utility of the 12 domains was checked by analyzing each competency statement in the master list to determine whether it belonged in one of the 12 domains and which one.

As this analysis continued, it was discovered that there were specific phases of performance within each of these domains. The competencies in each of the domains outlined steps or a sequence for functioning successfully in the domain. The steps described by the competencies were: assessing the needs within the domain, planning activities to meet those needs, implementing the activities, and then evaluating the adequacy and effect of the activities. Schoonmaker and Girard (1975, pp. 9-11) made a similar observation when they were identifying competencies for habilitation personnel. They found that all habitation personnel, regardless of their role, perform the same sequence of steps in providing their services: 1) select target population, 2) define need, 3) specify implementation plan, 4) implement



plan, and 5) svaluate effects.

The outcome of this analysis of the master list was creation of the Special Needs Teacher Competency Matrix presented in Figure 1. All the competencies in the master list were placed into these domain/phase cells. The matrix represented a classification system that totally encompassed all the competencies from the literature.

	PHASES						
	Assessment	Planning	Implementation	. Evaluation			
Educational Needs of the Student							
Personal Needs of the Student							
Classroom Social Environment							
Classroom Physical Environment							
IEP							
Curriculum							
Instructional Materials							
Special Needs Support Services							
Parents							
Community							
Legislation and Funding							
Continuing Professional Develop- ment of the Teacher							

Figure 1. The Special Needs Teacher Competency Matrix.

# Development and Description of the Needs Assessment Instrument

A review of the literature on needs assessment instrumentation examined a wide variety of formats and delivery collection strategies. The objective of this study was to design an instrument which could assess teachers' perceptions of their needs for inservice training in each of the phases of the 12 competency domains. Initial efforts focused on obtaining respondent reactions to an extensive listing of specific teacher competencies, drawn from previous research within the domains and phases. Instruments based on this concept were designed and circulated for review and comments among special education and vocational education teacher educators, secondary and post-secondary program managers, and the project's advisory committee members. This design concept was abandoned due to the required length of the instrument and the expected poor response rate.

With the formulation of the 12 domains of four phases each, it became feasible to design an instrument that focused on teacher inservice needs in each phase of the 12 domains. (See Appendix B for a copy of the instrument.) This approach utilized only 48 Likert Scale responses and required less of the respondents' time and assumed a higher response rate than the previous design. The instrument began with a paragraph that described the relationship of the competency domains to the inservice preparation of teachers to better serve special needs learners. Respondents were also informed that these concepts were drawn from previous research and that each domain has four phases, which were identified and defined. In addition, respondents were informed that their responses would help create a data base which could be utilized to plan future special needs inservice programs and activities. Finally, respondents were given directions to read each competency definition and to circle the one response for each phase of each domain that best



indicated their level of need for inservice training in that area. Responses were rerecorded in scoring boxes at the right hand margin to ease transferral to computer data cards.

#### **EXAMPLE:**

DOMAIN: CONTINUING PROFESSIONAL

DEVELOPMENT OF THE TEACHER

YOUR NEED FOR TRAINING

	Phase: Assessment	*	1	2	3	4	5
formal) by which an educator con-	Planning	*	1	2	3	4	5
tinues to seek to improve his/her	Implementation	*	1	2	3	4	5
ability to educate all students.	Evaluation	*	1	2	3	4	5

Additional sections were included that requested biographical information from the respondents and noted their preferences in regard to the times of delivery, the style of inservice delivery system, and the institutions or groups to deliver inservice activities.

### The Pilot Test of the Needs Assessment Instrument

In order to obtain pilot test input from teachers in the diverse types of vocational programs in Minnesota, an institution representative of each of the types of school programs was selected. The secondary level group contained a comprehensive vocational program, a vocational center that is affiliated with a post-secondary Area Vocational-Technical Institute (AVTI), and a vocational center that is not affiliated with an AVTI. The post secondary level group contained a Minneapolis-St. Paul metropolitan AVTI with an established vocational special needs program, a suburban AVTI with a developing special needs program, and an AVTI in an out-state region of Minnesota. A sample of 20 teachers was drawn from each of five of the programs (all nine of the teachers in the small non-AVTI affiliated secondary center were utilized).

Each instrument was coded with a number that identified the respondents



and the school in which they were employed. Instruments were mailed to respondents at their school addresses. The packets mailed to respondents also included a separate Comments page which focused on the instrument's appropriateness as a means to assess inservice training needs. (See Appendix C.) This form also requested reactions to the instrument's level of reading difficulty, physical layout and size, length, organization, and clarity of instructions. Separate propaid mailing containers were provided for the instrument and the comments sheet so that respondents would have the option of submitting their comments anonymously. After follow-up efforts to increase the response rate have been completed, the master list which matches code numbers to names will be destroyed, thus guaranteeing the anonymity of all participants but allowing the aggregation of data for the total group, at the secondary and post-secondary levels, and for specific schools.



## Analysis of the Data

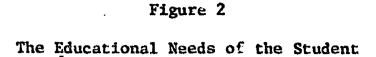
#### Inservice Needs

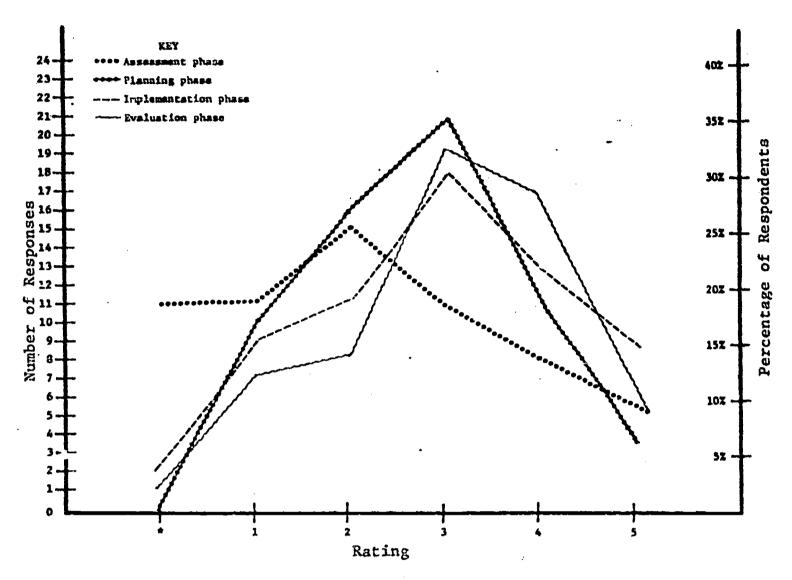
When the inservice needs assessment data from the pilot test instrument were compiled and represented graphically, indications of differing respondent perceptions of their inservice training needs became more apparent. Although the following comments are based on pilot test data, these comments must be viewed with reservation until the revised instrument's validity and reliability can be established with a higher return rate from a larger population in future research efforts.

In most of the 12 competency domains there was a noticeable tendency for the assessment phase to be rated at a lower inservice need level than for the other phases. This could be an indication that some respondents (perhaps those who serve in a support services role) feel that their competence levels are already sufficiently high to cope with assessment-related needs. It is also possible that some or all of the no need scores in the assessment phase are due to respondent's beliefs that the task of assessing student needs in the various domains is outside the role of the classroom teacher and, thus, undeserving of inservice.

Other broad variations in inservice need ratings seem to indicate that two or more sub-groups were represented among the respondent population. Perhaps some respondents have more training and/or experience working with special needs populations than others. It is also possible that some programs typically do not enroll as many special needs students as do other programs. Unfortunately, it is also possible that some respondents' attitudes or willingness to work with special needs learners are not as accepting of special needs learners and that instrument responses reflect these conditions rather than need for inservice.

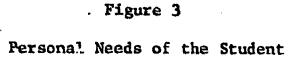


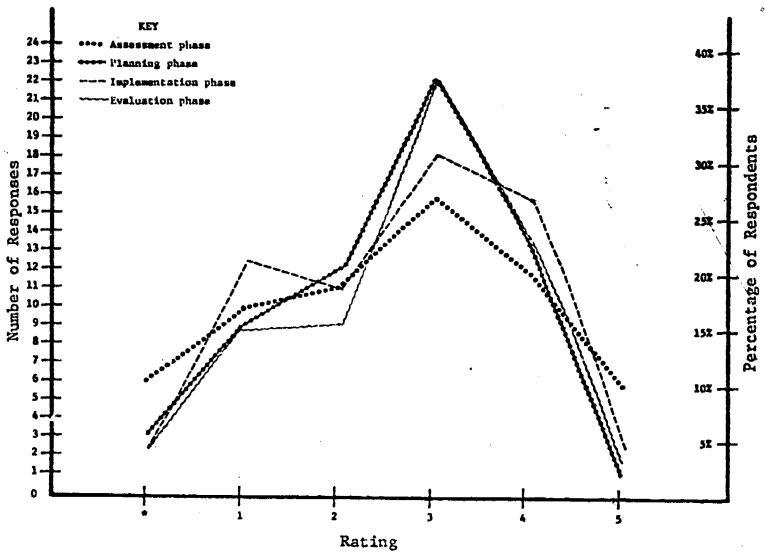




Responses related to the first domain, Educational Needs of the Student (see Figure 2), showed greater variations among the four phases than any of the other 11 domains. Also, all phases of this domain but assessment, are positively skewed toward higher levels of need scores. In fact, there were a large number of respondents, 18%, who indicated no need for inservice in the assessment phase while the other three phases were rated at the no need level by less than 3% of the respondents. Thus, although many respondents indicated felt needs for inservice in this domain, there appeared to be another group who felt competent and were rejecting possible inservice in the assessment phase and/or they did not perceive that competence area to be necessary for classroom teacher.



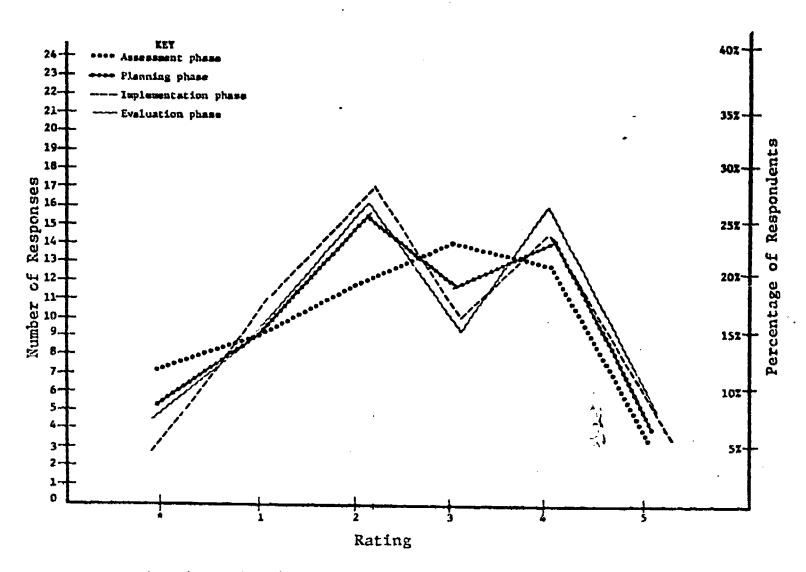




The second domain, Personal Needs of the Student, had a definite concentration (25-36%) of scores at the moderate need level. Also, need scores for all four phases were slightly skewed toward the higher end of the range. However, there was a group (3-10%) of respondents who expressed no need for inservice and the assessment phase received twice as many no need scores as any of the other phases (see Figure 3). It appears that a substantial number of respondents perceived inservice needs in this domain, but the assessment phase seems to be seen as the responsibility of assessment specialists, not of classroom teacher.



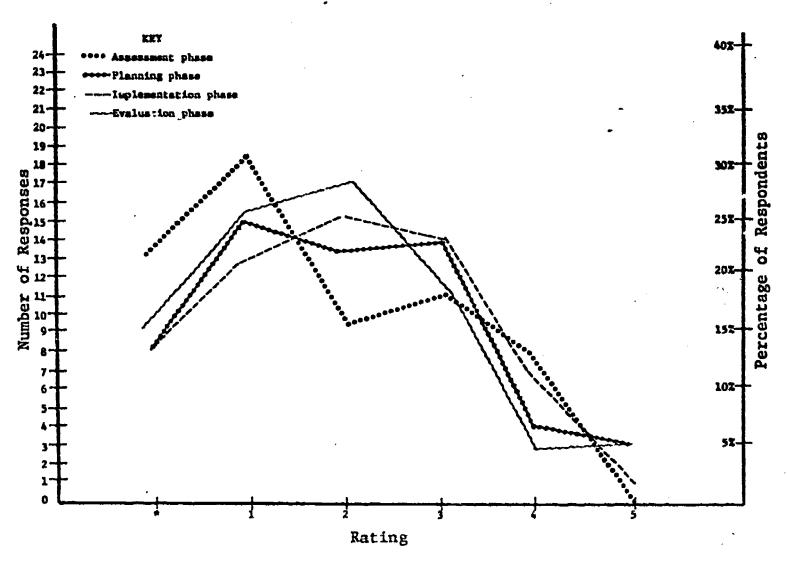
Figure 4
Classroom Social Environment



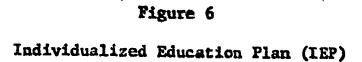
Data related to the third domain, Classroom Social Environment, indicated that two groups of respondents were clustered at slightly different levels of need (see Figure 4). The planning, implementation and evaluation phases each had groups at the low and high ends of the rating scale. As in Figures 2 and 3, reaction to the assessment phase differed from the other phases with assessment receiving a higher no need rating and having no such bi-model concentrations toward the extreme ranges of the scale. It might, therefore, be concluded that numerous respondents acknowledge varying levels of need for inservice in the planning, implementation and evaluation phases of this domain. However, the assessment of students' Classroom Social Environment needs seems to have been assumed to be the duty of specialists or the respondents already feel competent to cope with this competency area or that is not their responsibility to do so.

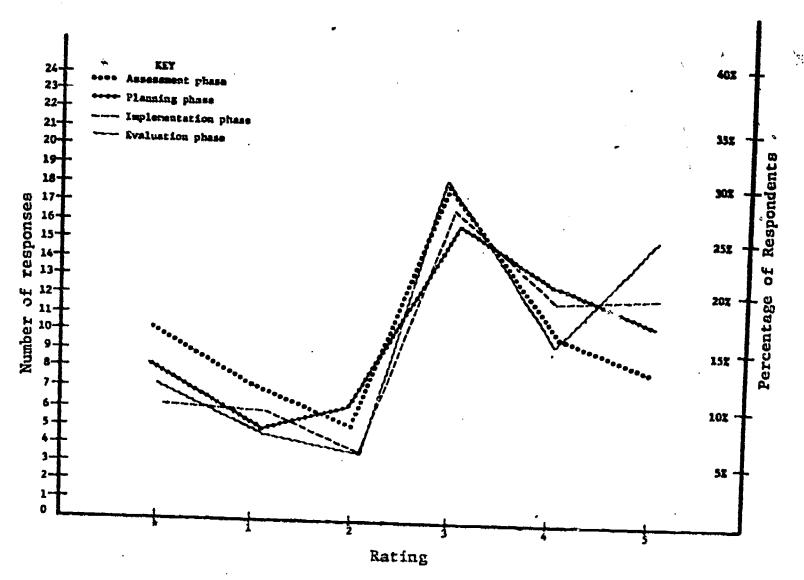


Figure 5
Classroom Physical Environment



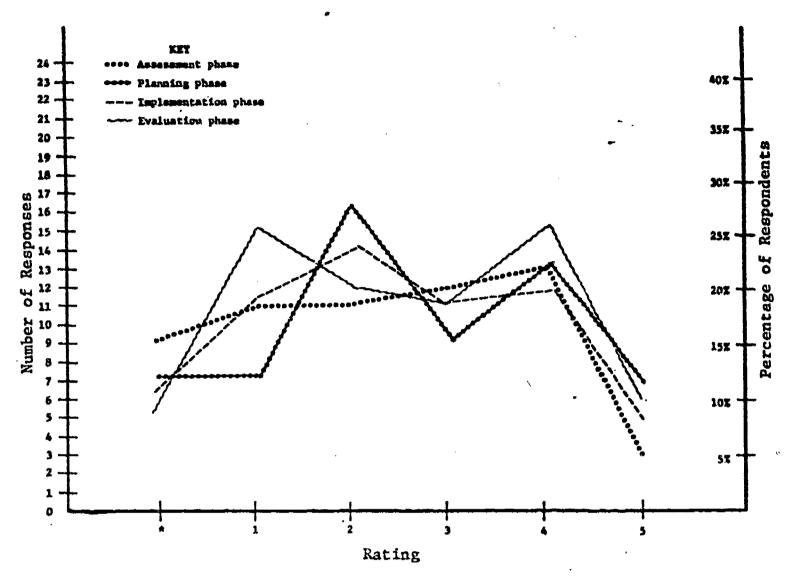
The data from the fourth domain, Classrom Physical Environment, generated distributions which were skewed further toward the low/no need end of the scale than in any other domain (see Figure 5). All phases received large numbers of no need or low need scores. However, such ratings low for the assessment phase continued to be related by even more respondents than for the planning, implementation, and evaluation phases. Thus, it appears that inservice efforts in this domain might be considered at a low priority level unless other evidence elsewhere tends to contradict the respondents' perceptions in this area.





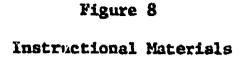
Data for the fifth domain, the Individualized Education Plan (IEP), generated graph curves that tended to be quite different from those for the other domains (see Figure 6). Although 10 to 17% of the respondents indicated no need for inservice in this domain, the number of low need scores were considerably lower. In addition, the majority of the scores were at the moderate or higher levels. In fact, more respondents selected the highest need rating for this domain than in any other domain. Therefore, although one divergent group of respondents felt no need for inservice on IEP's, a substantial number indicated high needs for inservice on this topic. IEP-related inservice will probably continue to become more desired as the qualitative aspects of IEP's begin to be examined in the foreseeable future.

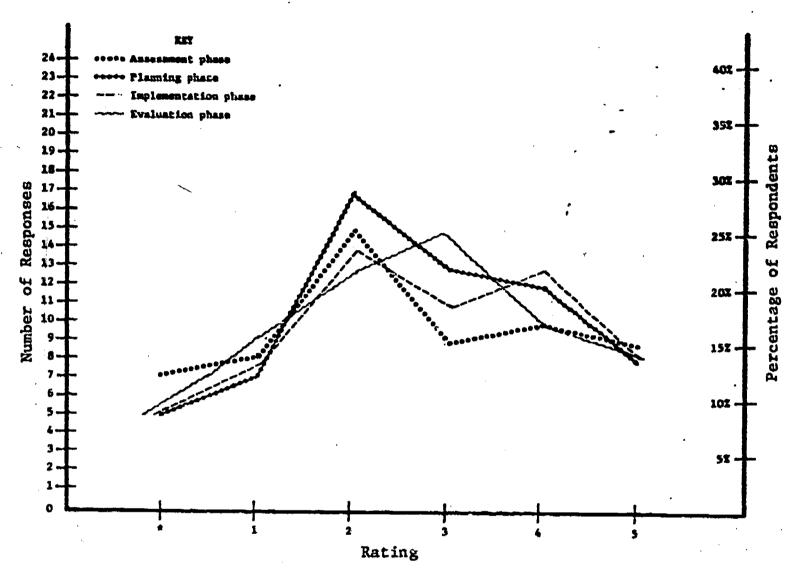
Figure 7 Course Curriculum



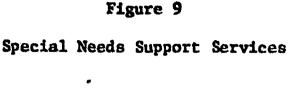
The sixth domain, Course Curriculum, showed a broad distribution of responses with little indication of any major clustering of responses which would allow an analyst to be definitive about trends and/or to generalize about the group's perceptions. Most phases also tended to be rated at similar levels of need, although scores for the planning phase did fluctuate more widely than scores for the other three phases (see Figure 7). It appears that, although many respondents feel no need for inservice in this domain, there continues to be a significant population who do feel such need and inservice efforts should be focused on those needs.

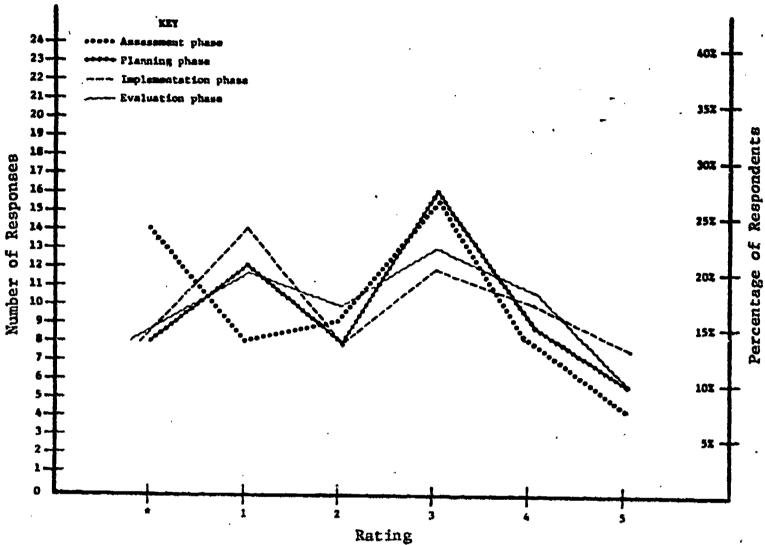






Responses to the seventh domain, Instructional Materials, were fairly similar in all phases (see Figure 8). Although there was a group of 8 to 12% of the respondents who indicated no needs in this domain, the majority selected responses in the moderate to high need range. However, the majority of scores were in the moderate to high range of scores and inservice efforts in this domain should certainly be provided if future data collection efforts produce similar findings.



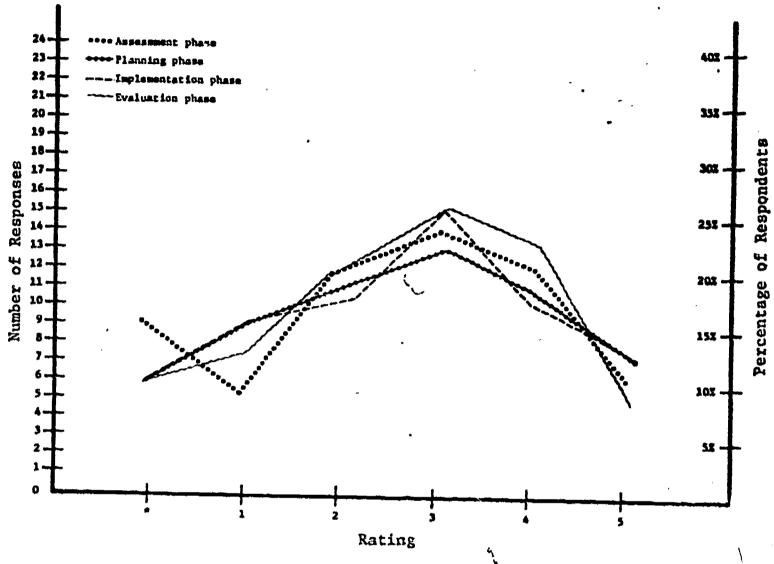


The eighth domain, Special Needs Support Services, generated a larger no need response than any of the other domains (see Figure 9). Almost 23% of the respondents indicated no need for inservice in this domain's assessment phase. The other three phases were all rated by 13% of the respondents at the no need level. However, the largest concentration of scores for this domain tended to be at the moderate need level and 8 to 14% indicated a high need for inservice in all four phases. Only the curve for the assessment phase was clearly divergent from the other phases and only at the low end of the rating scale. Although inservice activities in all phases of this domain appear to be justified, the large population of respondents who indicated no need should be identified to allow their exclusion from such inservice or to determine why they feel no need for such inservice before making further decisions.



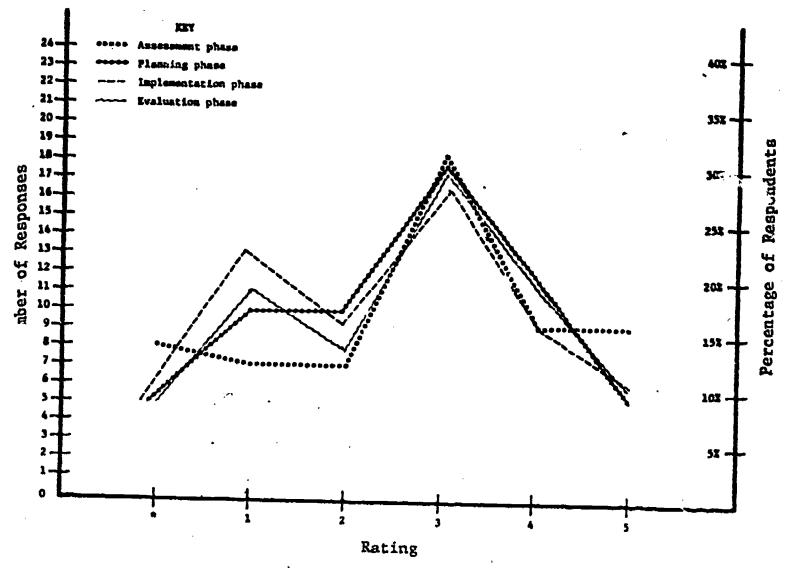
Figure 10

#### Parents



Respondents to the ninth domain, which is related to working with Parents, generated another rather flat distribution curve that is slightly skewed toward the high end of the scale (see Figure 10). There continues to be a group of 8 to 15% of the respondents who select responses at both extremes of the scale and the assessment phase again has noticeably more no need scores than the other three phases. Although some responsents may either have felt capable of assessing how to deal with parents or do not normally have to do so, this domain should be examined in all phases for possible inservice activities for a broad range of educators represented by the respondent population.

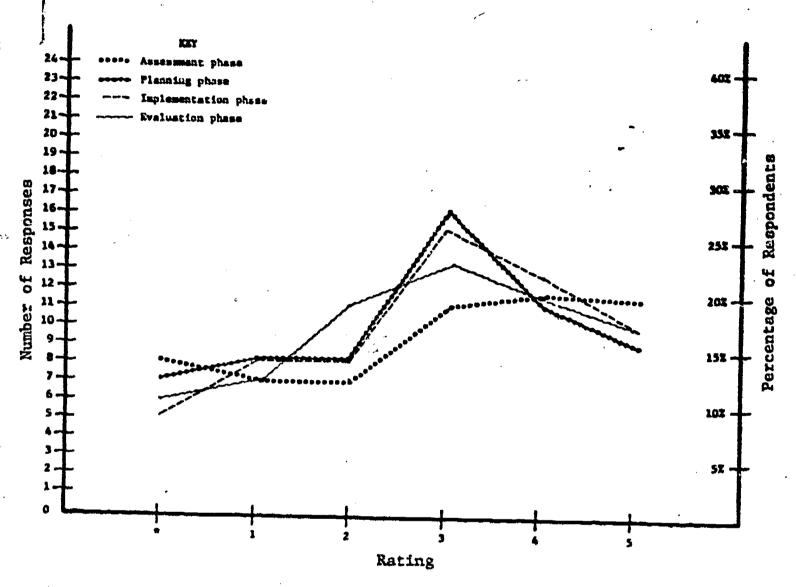
Figure 11
Community



The tenth domain, Community, has a definite cluster of responses clustered at the moderate need level (see Figure 11). There is also a poorly defined minor peak in the distribution curves at the low need score level for all phases except assessment. There is very little deviation in the ratings of the four phases, although the assessment phase's curve tends to differ slightly at both ends of the rating scale. Although 8 to 13% of the respondents indicated no need for inservice in all phases, there is a slight skew of the distribution of responses toward the high need end of the scale. Therefore, a large portion of the respondents are potential candidates for participating in inservice related to this domain.



Figure 12
Legislation and Funding



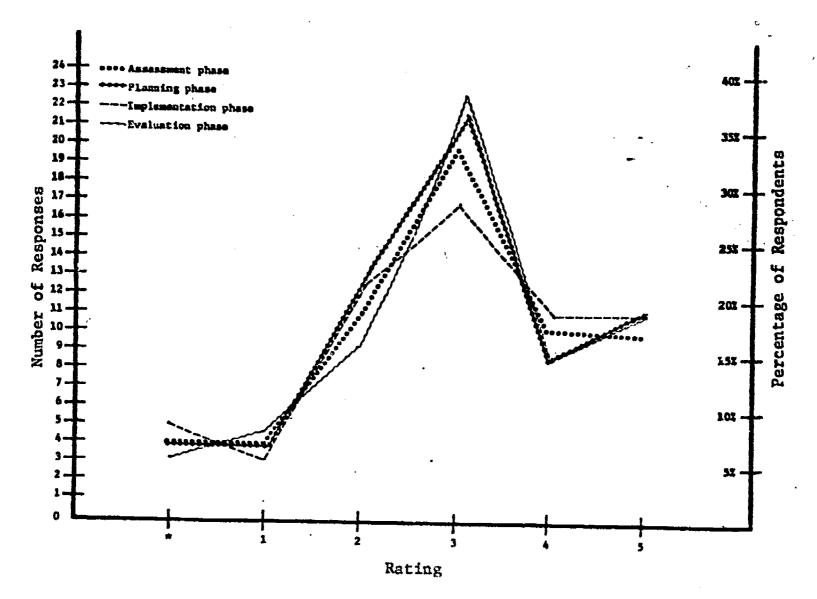
The eleventh domain, Legislation and Funding, is another case of rather even distribution respondents at all levels of the scale (see Figure 12). However, this is one of the few domains where more respondents indicated high needs for inservice than low needs. Although this curve is fairly flat, there is a noticeable peak at the moderate level in the planning, implementation, and evaluation phases. The assessment phase received the marginally highest number of selections at the no need level, but actually peaked at the high end of the needs scale for this domain. In no other domain did this occur with the assessment phase. Even though some respondents seem to have indicated they feel no need to better understand the laws and funding procedures related to scoring special needs populations, another group seemed to feel a need to be better informed on this topic and inservice should be considered.



Figure 13

Continuing Professional Development of the Teacher

\$P.7



Responses to the twelfth domain, the Continuing Professional Development of the Teacher, produced distribution curves that peaked sharply in all phases at the moderate level (see Fig. re 13). In addition, all curves were fairly consistent with one another and were skewed toward the high end of the scale. Also, scores in all phases were selected by twice as many respondents at the high end of the scale as compared to the low/no need range of the scale. The data seemed to indicate a well defined need for inservice in all phases of this domain with attle variation among the four phases.

Although, as noted previously, pilot test data were drawn from a relatively small sample population and thus are of questionable validity, certain unexpected findings seem worthy of highlighting. The data from the Classroom Physical Environment elicited a large number of no need and low need ratings. The distribution of scores was skewed toward the low range of inservice needs scores in spite of the apparent situation where most vocational educators claim they do not know how to effectively adapt physical facilities to special needs learners and that few informational resources are available on this topic.

It was also expected that need ratings in the Instructional Materials domain would be significantly skewed toward the high need range of the rating scale. Since adapted instructional materials are one of the more common, easily implemented means of serving mainstreamed special needs learners, inservice needs in this domain was expected to receive high scores. The more moderate response to this domain may be a function of the limited sample size or may indicate that the respondents did not feel it was their role to develop or adapt instructional materials to special needs learners.

As with Instructional Materials, the Support Services domain was also expected to be clearly skewed toward the high range of the needs scale. Although there was a limited concentration of persons at the moderate need level, there was another, almost equivalent, group of respondents who rated their inservice needs as being low. Thus, in a domain which focuses on the effective utilization of support services to help both special needs learners and their teachers, no well-defined needs for training to use these resources was evident. Either these support services were not perceived by the respondents as desirable or they feel they need no additional inservice to use these support services effectively.



One other group of ratings differed from previously expected reactions. The Legislation and Funding domain's ratings were definitely skewed toward, the high range of the inservice needs scale. Previous inservice activities have shown that vocational educators often care very little about how and why the legal mandate to service special needs learners evolved. This item in the instrument focused on services eligibility, administrative responsibilities, and the legal rights of educators, learners, and parents. The respondents may have perceived inservice training on these topics to be of value in preventing related legal problems and/or when better defining their roles with special needs learners, both within their school district and within their classroom.

## Inservice Delivery

The Inservice Delivery section of the instrument focused on the concepts of "How, When, and Who" in terms of each respondent's potential participation in vocational special needs inservice training experiences. The first item in this section focused on how respondents preferred inservice training to be delivered. Seven different delivery systems were listed (see Appendix A, Section III. A.) and respondents were asked to select and rank their top three choices. The overwhelming first choice was "Workshops" while "Individual Help from Experts (curriculum writers, counselors, project directors, special coordinators, etc.)" ranked second and "Observing Exemplary Teachers and Successful Programs" was close behind in third.

The second item in this section explored what respondents considered to be the most desirable times to participate in inservice training activities. Seven choices were provided (see Appendix A, Section III. B.) and respondents were asked to select all acceptable choices and to rank them



in order. The time most desired by respondents for inservice activities was "Professional Days During School Hours." The second most popular choice was "After School-Late Afternoons" while the third choice was "Summer-Week days."

The third item in Section III was designed to determine who respondents would prefer to act as deliverers of special needs-related inservice activities. A list of 11 persons, agencies, groups, and institutions was provided and respondents were asked to identify all acceptable alternatives and to rank them in order of preference. The most desired source of inservice activities was from "Other Expert Teachers." Two choices tied for second—"University Experts from Both Vocational Education and Special Education Departments" and "Nationally Recognized Vocational Special Needs Experts." The final choice to receive a significant number of votes was "Vocational Special Needs Experts from University Departments of Vocational Education." Although each list of choices for the questions in this section contained options labeled "Other" (with space to specify exactly what was desired), no respondents selected those items.

## Comments Page

The final section of the needs assessment instrument, the Comments page, was divided into two parts. The first part focused on respondents' perceptions of the instrument's appropriateness as a means of assessing their training needs. The second part of the Comments page contained questions about how the format of the instrument could be improved. All of these questions were open ended and this section of the instrument was designed to provide information on how acceptable and usable the instrument was with this population.

Fifty-five out of 109 Comments forms were returned. All but one of the



respondents completed the first part of the Comments form. However, the second section of the form was only partially completed by many respondents. The nature of responses was evenly split between positive and negative comments, thus indicating no clear majority opinion. The two parts of this section were analyzed separately and the results are presented separately in this report.

The first part of the Comments page asked respondents to "Please explain whether you thought this was a good way to assess your inservice training needs for serving special needs students." Answers to this question ranged from "very good" to "I'm not sure" to "no, I was tempted to throw it away..." There was an equal number of positive and negative reactions to this question with an almost equal number of uncertain responses. Some of the comments that exemplify the general responses and also the range of responses are presented below:

- Yes, this is a good idea. I would be interested in classes on curriculum, etc. to become more knowledgeable in this area.
- It was okay, sort of a personal, verbal contract, it is the best you probably can do.
- Yes, it seemed to cover most aspects of the task.
- Probably as good a way as available with a minimum expenditure.
- Should provide reasonable data.
- The technique is okay but I'm not sure the form will produce
  the right results because it is quite difficult for the person
  being surveyed to accurately assess their needs in the domains
  because they don't represent concepts that are clearly definable
  and totally understandable.
- This was not written for the person in the field to understand.



We aren't working with this every day like you are. The four phases of performance and development for each domain do not fit for some of the domains. I found it difficult to be consistent in my ratings.

- It is a difficult type of information to determine. It is a
  rather complicated instrument and time consuming. You will
  probably scare off some people who won't want to take the required time.
- I feel the questions could be worded much more simple and direct.

  I don't feel I explained or communicated the way I felt with this form.
- No, I have a real hard time understanding surveys of this nature.

  I am sure that if I took the same survey one month from now my

  answers could be entirely different.
- No, I think you should be specific. Your whole survey was generalized and therefore probably meaningless.
- Didn't like -- I'm not very receptive to the special needs project at this time.

The second part of the Comments page asked respondents to comment on the instrument's reading level, physical layout, length, choice of competency domains, and instructions. Most of the responses indicated that the instrument was acceptable in its present format. Yet, a few comments were made that indicated that the reading level may have been too high for some respondents, and also some respondents had to contentrate more than just casual attention on the instrument in order to be able to complete it as requested. These comments are presented below:

I did not like the questionnaire at all. Was very hard to figure



out what you really wanted. It was not clear at all. Could not tell what it was asking for. Make your questionnaire simple and to the point, not complicated and ambiguous.

- It took me awhile to catch on to how this was to be done.
- Surveys should be easy to do. Suggest one domain or one style be considered per survey.
- The definitions of the domains could be improved by using terminology and/or wording that is more concise and to the point. They
  sound to me as if they were written for some legal document such
  as an insurance policy.
- I found the form too frustrating to complete.
- I reread everything twice.
- Quite difficult. I had to reread several sections to fully understand.
- Not plain. Difficult to understand.

#### Discussion and Recommendation

One of the major goals of this research effort was to develop an instrument that could be used to measure teachers' needs for additional inservice training that would better prepare them to work effectively with vocational special needs students. It should be remembered, however, that this instrument was designed to determine teachers' self-ratings of their perceived needs for vocational special needs-related inservice training. These self-ratings were drawn from respondent reactions to an idealized model of the matrix of domains and phases of educational competencies identified by this and previous research efforts.

Now that the initial pilot testing of this instrument has been



completed, it appears than an instrument of this nature is a potentially viable means of assessing teachers' perceptions of their in-service needs. Since responses to all phases of the 12 domains, except the assessment phase, tended to be very similar, future versions of the instrument can be simplified by having respondents give only one rating of their needs in each domain. They can then answer a question about their needs in regard to the four phases as they apply to all domains. This should make the revised instrument easier to understand, quicker to complete, and should enhance response rates accordingly.

It was possible to identify personnel at each institution who were willing and capable of assisting in the process of data collection in their schools. Also, the data that were generated will be potentially useful when determining teachers needs for in-service, what competency domain(s) those in-service needs are in, what delivery system(s) is most acceptable, and when they would like these activities to be provided. If special needs in-service planners consider data drawn from the limited population of this pilot test and assume that the needs of the non-respondents were not significantly different from those of the respondents, those planners would be well advised to consider emphasizing the following in-service delivery systems: (a) workshops, (b) consultation with individual special needs experts, and (c) the opportunity to observe exemplary teachers and successful special needs program activities in operation.

In-service planners should also consider the initial indications that professional days were, by far, the most desirable time option for in-service activities. Afternoon activities, after school hours and summer week day activities were also selected, although by fewer respondents.

Of the potential deliverers of in-service activities proposed in the



instrument, the first choice, other expert teachers, closely parallels the second most popular delivery system which focused on observing exemplary teachers and programs. Other persons identified as being acceptable to present in-service activities were nationally recognized special needs experts, a combination of special education and vocational education faculty from local universities, and vocational special needs faculty from the local universities. Assuming that a more extensive data collection effort with a revised version of this instrument substantiates these findings, in-service planners should be able to design and implement vocational special needs in-service activities that maximize their probability of being perceived as useful, credible, and offered at times which least disrupt the participants' personal lives.

A second objective of this pilot test was to determine the instrument's acceptance by the sample population. Since all follow-up efforts have yet to be completed, it is impossible to specify the final proportion of the sample which will eventually complete the instrument. However, more than half of the identified sample has now completed and returned the instrument. Although it is not possible to project existing response data to the total population, it is possible to interpret comments received thus far. General reactions to the instrument and its design were almost equally split into positive and negative groups. Some respondents felt the instrument to be logically designed, easy to read, and appropriate for the task. Other respondents, however, found the reading level and format of the instrument to be confusing and difficult to interpret. Thus, if this instrument is to be revised for further use with the total spectrum of vocational educators, the instrument's reading level must be lowered considerably, the use of educational terminology must be reduced, and a more clearly understood and less visually overpowering format for the question items must be developed.



The vocational educator population contains a diverse collection of individuals with widely differing interests, educational and work experiences, attitudes, and special needs-related skills or knowledge. Loucks and Hall have acknowledged the need to accommodate "individual differences."

We strive to account for individual differences in children through the use of a myriad of innovations — instructional, organizational, and otherwise. But when we thrust large groups of teachers — often without their consent — into the world of innovation adaption, do we account at all for their individual differences? Or do we expect that they will each have the same concerns about how their roles must change, will have the same information needs about the innovation, and will adapt their behaviors in the same ways and at the same rates in accordance with the requirements of the innovation (Note 3, p. 1)?

Loucks and Hall point out that teachers are functioning at one of eight "Levels of Use" in regard to their use of innovation. Those levels range from a low of "non-use" (no action is being taken with respect to the innovation) to a high of "renewal" (the user is seeking more effective alternatives to the established use of the innovation) (Note 3, pp. 6-7).

Loucks and Hall also noted that teachers function at a progression of seven "Stages of Concern" in regard to their thoughts, feelings, and information needs. Those stages range from a low of "awareness" (unaware that the innovation exists and expresses no concerns about it) to a high of "refocusing" (the teacher is concerned about whether other innovations exist that would achieve the same goals more effectively) (Note 3, pp. 3-5).

The results of this research seem to support Louck's and Hall's position that teachers must move sequentially from stage to stage and from



level to level and their belief that the adoption of innovations is a "personal experience that entails developmental growth, rather than one that is instantaneous, accomplished without considering the individual differences of teachers" (Note 3, p. 10). The future use of a single instrument to measure the inservice needs of the total group may not be feasible. It may first be necessary to identify the major sub-groups so that their needs can be explored separately and perhaps with instruments tailored to needs of each group. With minor revisions in wording and format, the current instrument would seem to be suited to the inservice needs assessment of persons with college degrees in education and who perceive at least minimal personal commitments to serving vocational special needs learners. Educators in the other sub-groups may require different instruments or data collection procedures. Eventually, inservice programs must be designed to serve all groups of teachers at their individual levels of need.

The development of the conceptual model which examines teaching competency domains and phases in a matrix of cells containing specific competencies can greatly enhance future efforts to understand and explore vocational special needs-related inservice demands. Future researches are advised to consider identifying the inservice population sub-groups and their levels of need prior to needs assessment efforts. That will allow the development of instruments tailored to the needs of each group. Thus, the resulting findings are more likely to be useful when planning for and providing inservice training at each level of need according to their "Levels of Use" and "Stages of Concern" about innovative educational processes and procedures to serve special needs learners.



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Appendix A

#### VOCATIONAL TEACHER INSERVICE NEEDS ASSESSMENT PROJECT

#### Advisory Committee Membership

Bruce Balow Special Education Department, University of MN Hal Burkland Manager of Special Needs Division Voc-Tech Division State Department of Education Jim Drimel Counselor, Anoka Area Vocational-Technical Institute John Flynn Coordinator for Senior High Special Needs Programs Minneapolis Public Schools Torey Hayden Special Education Department, University of MN Dennis Jensen Project Explorer, Director St. Paul Public Schools Ray Karhu Special Needs Coordinator Cooper High School Bob Lauritsen Division Manager, Special Needs St. Paul Technical-Vocational Institute Dennis Lesher Lead Instructor Evaluator #916 Area Vocational-Technical Institute Tom Sawyer Director of Project TIME Suburban Hennepin County Area Vocational-Technical Schools, District #287 Richard Weatherman Ed. Administration & Special Education Department, University of MN Donna Zigler Vocational Teacher Edison High School, Skill Center

#### Research Project Team Members

Jim Brown, Project Director

Laurie Peak

Jim Greenan

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Appendix B



## VOCATIONAL SPECIAL NEEDS

## EDUCATOR INSERVICE

## NEEDS ASSESSMENT INSTRUMENT

### DEVELOPED BY



1980



## I. BACKGROUND INFORMATION

[Please Print]

A.	What is the title of your present position?	1/1
В.	How many years have you been employed in your present position?	
c.	How many total years have you been employed as an educator?	
D.	What grade level(s) do you currently serve [circle all that apply]?  7 8 9 10 11 12 Post Secondary Other [Specify]:	
	7 0 9 10 11 12 Post Secondary Other [Specity]:	لبليلا
E.	Which of the following best describes your educational preparation [select only one]?  Less than a Bachelors Degree Doctoral Degree Bachelor Degree Journeyman Masters Degree Technical Specialist Specialist Degree Bachelor Equivalent	
F.	In what field was your most recent degree granted?	
G.	Are you currently vocationally certified?	
	Yes If yes: What type of certification do you now hold?  Regular  Temporary  Provisional	•
н.	Are you currently special education certified? No	
	Yes If yes: In which special education area(s) are you certified?	
r.	Of which department are you a member?	-
	Vocational Education  Special Education	L
J.	What is your <u>estimate</u> of the number of special needs students that you now typically serve in a school year?	

The phrase "special needs students" refers to individuals with characteristics which prevent them from succeeding in vocational education programs without additional or special assistance.



### *INSERVICE NEEDS ASSESSMENT*

## ABOUT THE INSTRUMENT:

The twelve domains used in this instrument represent areas of competencies needed by educators in order to serve vocational special needs students. These domains were identified following a thorough review of prior competency related research and the creation of a conceptual model for identifying special needs teacher competencies. Each domain is divided into four phases of performance or development. These phases are:

ASSESSMENT:

The process of identifying and measuring those needs related to the students, staff, community, curriculum, finance and facilities that exist within a domain.

PLANNING:

The process of outlining the procedures and steps for meeting selected needs within

a domain.

IMPLEMENTATION:

The process of providing services and activities to meet the selected needs within

a dunain.

**EVALUATION:** 

The process of determining the adequacy, quality and/or effect of the goals, objectives, inputs, procedures and outcomes within a domain.

The purpose of this instrument is to assess educators' training needs within each phase of the twelve domains. The instrument will also determine educators' inservice training delivery preferences. The results of this needs assessment will be used to plan future vocational special needs inservice activities and programs.

#### DIRECTIONS:

Below is a list of the twelve competency domains, including a brief definition of each domain title. After reading each of the definitions, please indicate the amount of additional training that YOU need in each domain phase to better serve your special needs students. CIRCLE one response for each domain phase.

			YOUR	NEE	D FOR	TRAIN	ING	
EXAMPLE:  DOMAIN: COURSE CURRICULUM	Phase:	Assessment	. *	Low 1 1 1		rate 3 4 3 4 3 4 3 4	High 5 5 5 5 5	7
DOMAIN: EDUCATIONAL NEEDS OF THE STUDENT  Those concepts and abilities which must be enhanced or mastered by students in order to succeed within a given area of study. These needs may be of a cognitive, affective, and/or psychomotor nature.	Phase:	Assessment	* *	1	2 2 2 2 2	3 4 3 4 3 4 3 4	5 5 5 5	
DOMAIN: PERSONAL NEEDS OF THE STUDENT  Those interpersonal abilities and attitudes which, when developed and demonstrated by students, can enhance their sense of well-being and maximize their effective interaction with other people.	Phase:	Assessment	* * *	1	2 2 2 2	3 4 3 4 3 4 3 4	5 5 5 5	
DOMAIN: CLASSROOM SOCIAL ENVIRONMENT  The development and maintenance of those attitudes and interactions between educators and students which must exist in the learning environment to help all students' achieve their educational, social, and emotional potential.	Phase:	Assessment	* * *	] ] ]	2 2 2 2	3 4 3 4 3 4 3 4	5 5 5 5	
DOMAIN: CLASSROOM PHYSICAL ENVIRONMENT  Those physical characteristics of an educational facility which affect access to and movement through a building and the utilization of the various equipment, materials, and services	Phase:	Assessment	* *	7	2 2 2 2	3 4 3 4 3 4 3 4	5 5 5 5	B



within the building.

## YOUR NEED FOR TRAINING

							No Need	Low	Ma	derat		High	•.
DOMAIN:	THE INDIVIDUALIZED EDUCATION	Phase:	Assessment .		•							5	45
	PLAN (IEP)		Assessment . Planning Implementati Evaluation .	on .	•	• •	*	1	2	3 3	4	5 5	H
and in local identi Mappro	tten plan which specifies processes, procedure istructional activities to be implemented by education agencies, in order to insure that a lifted special needs learners are provided with priate" educational experiences within their trestrictive environment".	5,	Evaluation .	• •	•	• •			2	3	4	5	
DOMAIN:	COURSE CURRICULUM	Phase:	Assessment .		•		*	1	2	3	4	5	H
proced presed	goals, objectives, activities, and/or dures that determine which topics will be nited, how, when, and what achievement levels be expected of students within a course.		Assessment . Planning Implementati E: aluation .	on .	•	• •	*	1	2	3	4	5	
DOMAIN:	INSTRUCTIONAL MATERIALS	Phase:	Assessment .		•		*	1	2	3	4	5	H
teache equipo utili; order	de range of materials, commercial and er made (e.g., books, handouts, A-V ment, consummables, etc.), which can be ded during instructional activities in to focus on and/or enhance the effective—of the educational process.		Assessment . Planning Implementati Evaluation .	on .	•		*	1	2 2	3	4	5 5	8
DOMAIN:	SPECIAL NEEDS SUPPORT SERVICES	Phase:	Assessment .		•	• •	*	1	2	3	4	5	H
person educat learn	specialists and supplemental educational mel who are available to enhance the tional experiences of students with specialing needs that cannot be sufficiently fultiby a teacher alone in a regular classroom mg.		Assessment . Planning Implementati Evaluation .	on .	•	• •	*	i 1	2 2	3	4	5	
DOMAIN:	PARENTS	Phase:	Assessment .				*	1	2	3	4	5	H
guard utili: exper partic	ways in which the parents and/or legal lans of special needs learners can best be sed in order to enhance their child's learning lence (both at school and at home) and actively ipate in the planning and delivery of those lences with the child and his/her teacher(s).		Assessment . Planning Implementati Evaluation .	on .	•		*	1	2 2	3 3	. 4 4	5 5	
DOMAIN:	COMMUNITY	Phase:	Assessment .		•		*	1	2	3	4	5	H
local supple	persons, agencies, and/or services at the state and national levels which can ement and enhance the value and effectiveness nool experiences for students.		Assessment . Planning Implementati Evaluation .	on .	•	• •	*	1	2 2	3	4	5 5	
DOMAIN:	LEGISLATION AND FUNDING	Phase:	Assessment .		•		£	]	2	3	4	5	
person beyond regula admin servic	legal mandates that specify: 1) which is are eligible for educational services if those typically provided to students in ar classrooms; 2) who is responsible for the istration, funding, and delivery of these ies; and 3) certain rights of educators, all needs learners and their parents.		Assessment . Planning Implementati Evaluation .	on .	•	• •	*	i	2 2	3 3	4	5 5	
DOMAIN:	CONTINUING PROFESSIONAL	Phase:	Assessment .				*	1	2	3	4	5	-
	DEVELOPMENT OF THE TEACHER		Assessment . Planning Implementati Evaluation .	on .	•	• •	*	1	2 2	3 3	4	5 5	
an edi	procedures (formal and informal) by which ucator continues to seek to improve his/her ty to educate all students.	40		- •	-	- •	,			-	•	•	<b>.</b> ,
ERIC Full Text Provided by EBIC		ં <b>વ</b> ે €	<i>)</i>									•	·

# III. INSERVICE DELIVERY

A.	How would you like to receive this inservice training?	382
	(Read the entire list below. Select the three (3) that you prefer most, and rank them: 1 = first choice; 2 = second choice; 3 = third choice)	•
	Higher Education Courses	<u>_</u> 'm
	Individualized Training Modules, Workbooks, Films, Etc.	
	Workshops	H
	Observing Exemplary Teachers and Successful Programs	2/1
	Internship Experiences	H.
	Attending Conventions and/or Professional Meetings	
•	Individual Help from "Experts" (Curriculum Writers, Counselors, Project Directors,  Special Coordinators, Etc.)	
	Other (specify):	
	Comments:	•
8.	When would you like to receive this inservice training?	
	(Select all acceptable choices and rank them: 1 = first choice; 2 = second choice; etc.)	· .
	Weekends During the School Year	<u></u>
	"Professional" Days During School Hours	$\mathbf{H}$
	After School - Late Afternoon	
	After School - Evenings	
	Summer - Weekdays	
	Summer - Weedends	
	Summer - Evenings	
	Other (specify):	L_J,



Comments:

Yourself		
Other Expert Teachers		
Other Staff From the Local School Dis	strict	
Nationally Recognized Vocational Spec	cial Needs Experts	
Community Agencies	•	ļ
Parent Groups		0
Professional Education Organizations	(MEA, MVA, Etc.)	
Vocational Special Needs Experts from	m University Departments of Vocational Education	F
	n University Departments of Special Education	
	nal Education and Special Education Departments	
	m the Minnesota State Department of Education	L
Other (specify):		
omments:		
omment?:		•
•		
<b>3</b>		
•		
with would you profes to morning for mouti		
ich would you prefer to receive for partiCullege Credit	cipating in these inservice activities?	



D.

Appendix C

# IV. COMMENTS

Nar	ne:
Pho	one: ( )
Α.	Please explain whether you thought this was a good way to assess your inservice training needs for serving special needs students:
8.	Please list any comments or suggestions that might be useful in the improvement of the content and/or construction of this questionnaire.
	1. The level of reading difficulty:
	2. The physical layout and size of the questionnaire:
	3. The length of the questionnaire:
	4. The choice of competency domains:
	5. The clarity of instructions:



6. Other: